

Amendment and Response

Applicant: William J. Bertrand et al.

Serial No.: 10/698,117

Filed: October 31, 2003

Docket No.: M190,247.101 / P0011522.00

Title: INDICATOR TOOL FOR USE WITH AN IMPLANTABLE MEDICAL DEVICE

REMARKS

The following remarks are made in response to the Non-Final Office Action mailed December 8, 2010. In that Office Action, claims 8, 10-13, and 15-17 were rejected under 35 U.S.C. §103(a) as being unpatentable over Bertrand et al., U.S. Publication No. 2002/0022793 ("Bertrand") in view of Weijand et al., U.S. Patent No. 6,305,381 ("Weijand"). Claims 9 and 14 were rejected under 35 U.S.C. §103(a) as being unpatentable over Bertrand in view of Weijand as applied to claims 8 or 13 above, and further in view of Abraham-Fuchs, U.S. Patent No. 5,136,242 ("Abraham-Fuchs").

With this Response, claims 8 and 13 have been amended. Claims 1-36 remain pending in the application and are presented for reconsideration and allowance.

35 U.S.C. §103 Rejections***Independent Claim 8***

Independent claim 8 relates to an electronic magnetic-based indicator tool, and recites, amongst other things, a housing, an electronic compass module, and a locator tool interface module. The housing has an electric connection and removable mounting to the locator tool. The electronic compass module is carried by the housing for measuring an orientation of sensed magnetic fields. As amended, claim 8 recites that the locator tool interface module is carried by the housing of the indicator tool for electronically communicating sensed magnetic field data to a processing module carried in the locator tool for receiving magnetic data values from the electronic compass module. In addition, claim 8 provides that the processing module receives and stores background magnetic field data, receives target magnetic field data from the electronic compass module when the indicator tool is connected to the locator tool and is located above an implanted flow control device having a magnetic indicator device coupled to a valve, electronically determines an orientation of the magnetic indicator device based upon the background magnetic field data and the target magnetic field data, and electronically determines a setting for the valve from the determined orientation of the magnetic indicator device.

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The Office Action interprets Bertrand as teaching each of the features of claim 8 except for the claimed electronic processor for electronically locating and determining the setting of the valve. To address this deficiency, the Office Action references microprocessor 54 of Weijand, contending that one of skill would reasonably modify the detection system of Bertrand to electronically detect the location and orientation of the magnetic field emitted by the implanted medical device wherein magnetic fields are electronically sensed by the indicator tool and analyzed by a processor in the locator tool similar to the detection system of Weijand, because an electronic detection and processing system provides a noninvasive, automated mechanism which reduces the potential for human error in detecting the location and orientation of an implanted medical device. Applicant respectfully disagrees, and further asserts that the proposed modification does not teach each and every feature of claim 8.

The Office Action cites to index 88 of Bertrand in combination with switch 50, amplifier 51, and computer 53 of Weijand as the presently recited locator tool interface module and microprocessor 54 of Weijand as the presently recited processing module. In response to a magnet placed near the indicator tool 28 of Bertrand, the pointer 84 "points" to a particular designation along the index 88/locator tool interface, thereby indicating a valve setting. Index 88 of Bertrand is essentially a label affixed to indicator central body 60 around compass 62. *Bertrand at para. [0058]; see also Fig. 9.* Additionally, switch 50, amplifier 51, and computer 53 of Weijand are housed in location processor 2 along with microprocessor 54/processing module. *Weijand at Fig. 4.* Contrary to the present claim 8 which recites that the processing module is provided with the locator tool, not the indicator tool, with the modified indicator tool of Bertrand/Weijand, the locator tool has no processing module. In fact, Bertrand is premised upon the indicator tool 28 performing and providing all valve setting determinations via the indicator tool pointer 84/index 88 independent of the locator tool 26. Thus, Bertrand teaches away from the inventive features of amended claim 8 whereby the indicator tool simply senses and electronically communicates electronic field information to the separate locator tool/locator tool's processing module that, in turn, discretely determines an orientation of the magnetic indicator device and the valve setting.

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Additionally, the locator tool processing module of claim 8 is programmed to determine an orientation of the magnetic indicator device, as well as to electronically determine a setting for the valve. However, as discussed above, with the modified indicator tool of Bertrand, the locator tool has no processing module, and thus cannot perform the determinations as claimed. In fact, Bertrand is premised upon the indicator tool 28 performing and providing all valve setting determinations via the indicator tool pointer 84/index 88 independent of the locator tool 26. Therefore, the cited references do not teach or reasonably make obvious the features of claim 8.

Further, the Office Action references compass 62 of Bertrand as well as antennas 30-32 of Weijand with respect to the presently recited electronic compass module. However, even if the compass 62/electronic compass module of Bertrand could somehow be replaced or modified with the antennas 30-32 of Weijand, the resultant indicator tool would still have this same operational construction; namely, magnetic field information from the antennas 30-32 is processed by the location processor 2 and somehow implemented to “point” the pointer 84 at a particular location along the indicator tool’s index 88. The so-generated indication of valve setting is independent of the separate locator tool 26.

For at least reasons, then, amended claim 8 is allowable over the cited art. Claims 9-12 depend from claim 8 and thus, for at least the above reasons, are also allowable.

Independent Claim 13

Amended independent claim 13 relates to an electronic magnetic-based indicator tool, and recites, amongst other things, an indicator tool housing configured for removable assembly to a housing of a locator tool. A target compass module is housed within the indicator tool for measuring an orientation of sensed magnetic fields and a background compass module is housed within the locator tool away from the indicator tool for measuring an orientation of sensed magnetic fields.

In contrast, Bertrand requires that the indicator tool is housed within the locator tool. The Office Action acknowledges that Bertrand teaches an indicator central body of the indicator tool

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is placed within the tube of the locator tool. The Response to Arguments section of the Office Action contended that the broadest reasonably interpretation of previous claim 13 does not necessarily require that the target and background compass modules are physically separate and housed in physically separate locations of the device. As amended, claim 13 that the presently recited background compass module is housed within the locator tool away from the indicator tool.

Claims 14-17 depend from claim 13. For at least the above reasons, then, claims 14-17 are allowable over the cited art.

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CONCLUSION

In view of the above, Applicant respectfully submits that the pending claims are in form for allowance and are not taught or suggested by the cited references. Therefore, reconsideration and withdrawal of the rejections and allowance of these claims is respectfully requested.

No fees are required under 37 C.F.R. 1.16(h)(i). However, if such fees are required, the Patent Office is hereby authorized to charge Deposit Account No. 50-0471.

Please consider this a Petition for Extension of Time for a sufficient number of months to enter these papers, if appropriate. At any time during the pendency of this application, please charge any additional fees or credit overpayment to Deposit Account No. 500471.

Any inquiry regarding this Response should be directed to Timothy A. Czaja at Telephone No. (612) 573-2004, Facsimile No. (612) 573-2005. In addition, all correspondence should continue to be directed to the following address:

Dicke, Billig & Czaja, PLLC
ATTN: MD Matters
Fifth Street Towers, Suite 2250
100 South Fifth Street
Minneapolis, MN 55415

Respectfully submitted,

William J. Bertrand et al.,

By their attorneys,

DICKE, BILLIG & CZAJA, PLLC

Timothy A. Czaja, Reg. No. 39,649

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TAC:jms